

[54] **ULTRAVIOLET CURABLE FORMULATIONS CONTAINING URETHANE ACRYLATE MONOMERS**

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[58] Field of Search 204/159.19, 159.23; 526/301

[56] **References Cited**

U.S. PATENT DOCUMENTS

3,479,328	11/1969	Nordstrom	526/301
4,098,918	7/1978	De Majistre	526/301
4,279,833	7/1981	Culbertson et al.	526/301
4,287,323	9/1981	Tefertiller et al.	526/301
4,328,325	5/1982	Marquardt et al.	526/301
4,376,800	3/1983	Lu et al.	526/301
4,420,527	12/1983	Conley	428/167

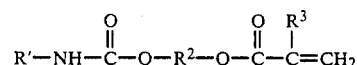
4,451,636 5/1984 Tsao et al. 204/159.19

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[57] **ABSTRACT**

A coating composition comprising a radiation curable oligomer and a reactive diluent having the formula:



wherein R' is a monovalent aromatic or alkyl radical including from 4 to about 20 carbon atoms, R² is a divalent alkyl radical including from about 2 to about 4 carbon atoms, and R³ is hydrogen or methyl. Addition of the reactive diluent not only reduces the viscosity of the uncured composition to an acceptable value for use as a coating but also surprisingly increases the elongation of the cured coating without reducing its tensile strength. Superior coatings for floor tiles, flooring, and other applications are thus provided.

16 Claims, No Drawings